UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/666,046	09/20/2003	Sunil K. Nagarajrao	SJO920030012US1	6579

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MABINI, MARVIN

ART UNIT	PAPER NUMBER
2153	

DATE MAILED: 10/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

Office Action Summary	Application No.	Applicant(s)
	10/666,046	NAGARAJRAO ET AL.
	Examiner	**Art Unit**
	Marvin Mabini	2153

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. .
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _20 September 2003_.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-20_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-20_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _20 September 2003_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _20030920_.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1.   Claim 10 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Applicant has written claim 10 as dependent on itself, for purposes of prosecution, claim 10 is interpreted as being dependent on claim 6.

Claim Rejections - 35 USC § 112

2.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3.   Claims 4, 8 and 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 4 lines 2 and 3 states "said agents". Applicant states in the parent claim 1 line 3, "plural discovery agents". For purposes of prosecution, "said agents" is interpreted to refer to the "discovery agents".

Claim 8 line 1 states "said agent". For purposes of prosecution, "said agents" is interpreted to refer to the "discovery agents".

Claim 9 line 3 states "said agent". For purposes of prosecution, "said agents" is

interpreted to refer to the "discovery agents".

Claim 10 lines 3-4 states "said agent". For purposes of prosecution, "said agents"

is interpreted to refer to the "discovery agents".

Claim Rejections - 35 USC § 101

4.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of
> matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the
> conditions and requirements of this title.

5.   Claims 1-10 are rejected under 35 U.S.C. 101 because the claimed invention is

directed to non-statutory subject matter.

Claims 1-10 are directed to agents in a network and no hardware present. The claims

are software per se. Applicant needs to mention a type of hardware in order for the

claims to be statutory.

Claim Rejections - 35 USC § 102

6.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7.   Claims 1-4, 6-10 and 12-15 are rejected under 35 U.S.C. 102(b) as being

anticipated by US Patent 5638494 to Pinard et al (hereinafter Pinard).

As per claim 1, Pinard discloses a network management system for discovering

information about a network (see communication system – Pinard abstract), comprising:

- plural discovery agents (see plurality of process agents – see Pinard column 1

  lines 55-64) adapted to discover information concerning said network (see

  information – Pinard column 1 lines 47-48);

- each of said discovery agents having an associated discovery capability (see

  goal – Pinard column 3 lines 8-11);

- each of said discovery agents having an associated discovery assignment (see

  jurisdiction – Pinard column 3 lines 12-13);

- and collectively, said agent discovery assignments being a subset of said agent

  discovery capabilities (see Pinard column 2 lines 61-64; an agent is capable of

  only what it is instructed or assigned to do, hence a subset of its capability).

As per claim 2, Pinard discloses wherein, collectively, said agent discovery

capabilities are overlapping (see accept setup goals – Pinard column 5 lines 53-54; note

that the agent's capability is the same as to other agents) and said agent discovery

assignments are substantially non-overlapping (see Pinard column 5 lines 54-56; the

agent's capability are limited based on the goal or assignment, hence a subset).

As per claim 3, Pinard discloses wherein said agent discovery assignments are based on said discovery capabilities (see agents – Pinard column 5 lines 24-27; note that the agents have specific assignment therefore the assignment is based on the capability of the agent).

As per claim 4, Pinard discloses wherein said agent discovery assignments reflect one or more of data collection service registrations (see information area – column 9 lines 20-22; the agent uses this information or registry to determine its goal or assignment) with said agents, agent cost to obtain network information, load balancing among said agents, and assignment churn (see system health, metering, tracing, agent context – Pinard column 9 lines 22-25; this information is used by agent in terms of its discovery assignment or goal).

As per claim 6, Pinard discloses a network management system for discovering information about a network (see communication system – Pinard column 1 line 39-41), comprising:

- a network manager (see blackboard – see Pinard column 4 lines 2-6; the blackboard has all the information that directs how the agents behaves);

- plural discovery agents connected to said network manager (see Pinard figure 5; note a plurality of agents, blocks 57, are connected to blackboard, block 60);

- each of said discovery agents (see plurality of process agents – see Pinard column 1 lines 55-64) having an associated discovery capability to obtain information concerning said network (see information – Pinard column 1 lines 47-48);

- capability determining means (see allocating resources – Pinard column 5 lines 28-29) for determining said agent discovery capabilities (see different types of work – Pinard column 5 lines 7-12);

- assignment computation means (see set area – Pinard column 5 lines 53-60; this computes the goals or assignments of agents) for computing agent discovery assignments for one or more of said discovery agents based on said agent discovery capabilities (see setup goals – Pinard column 5 lines 53-60; based on the capabilities, agents setup their goals or the assignments); and

- assignment implementing means (see act area – Pinard column 6 lines 6-11) for implementing said agent discovery assignments at one or more of said discovery agents (see decomposition of a goal – Pinard column 6 lines 7-11).

As per claim 7, Pinard discloses wherein said network manager is not part of said network (see post event to blackboard – Pinard column 10 lines 20-26; agents post events to the blackboard is not part of the network of devices and systems that agents are monitoring).

As per claim 8, Pinard discloses wherein one or more of said agents are associated with nodes in said network (see printer agents – Pinard column 11 lines 37-40; note that the printer is connected to the LAN or network, hence a node, and an agent is connected to it).

As per claim 9, Pinard discloses wherein said capability determining means comprises first means in said network manager for requesting a capability poll (see notification area – Pinard column 10 lines 22-26), second means in said agents for performing a capability query (see capabilities mechanisms – Pinard column 7 lines 31-40), and third means in said agents for providing a capability poll response to said network manager (see agent post to blackboard – Pinard column 10 lines 20-21; agent post to the blackboard of the state of their capability).

As per claim 10, as best understood, Pinard discloses wherein said assignment computation means is adapted to generate (see capability definition mechanism – column 7 lines 44-46) said agent assignments based on one or more of data collection service registrations (see information area – column 9 lines 20-22; the agent uses this information or registry to determine its goal or assignment) between said network manager and said agents, agent cost to obtain network information, load balancing among said agents, and assignment churn (see system health, metering, tracing, agent

context – Pinard column 9 lines 22-25; this information is used by agent in terms of its

discovery assignment or goal).

As per claim 12, Pinard discloses a method for obtaining intelligent discovery of

network information in a network using a plurality of network discovery agents (see

plurality of process agents – see Pinard column 1 lines 55-64) having mutually

nonexclusive discovery capabilities (see different types of work – Pinard column 5 lines

7-12), comprising:

- determining said agent discovery capabilities (see allocating resources – Pinard
  column 5 lines 28-29);

- computing agent assignments (see set area – Pinard column 5 lines 53-60; this
  computes the goals or assignments of agents) based on said agent discovery
  capabilities (see setup goals – Pinard column 5 lines 53-60; based on the
  capabilities, agents setup their goals or the assignments) and a goal of limiting
  network discovery poll overhead (see brokers - column 3 lines 45-49; overhead
  is reduced by the broker which finds suitable mechanisms);

- and implementing (see act area – Pinard column 6 lines 6-11) said agent
  assignments (see decomposition of a goal – Pinard column 6 lines 7-11).

As per claim 13, Pinard discloses wherein said agent discovery capabilities are

determined by performing capability polls (request – see Pinard column 6 lines 45-51; a

agent is picked to do the request for service, therefore the system has determined of its

capability to do that specific assignment) representing subsets of full network discovery

polls (see existing agents – Pinard column 6 lines 53-56; agents can handle various

task, agent does service based on a specific request or assignment, that specific

capability of the agent is a subset the agents capability of full network discovery).

As per claim 14, Pinard discloses wherein said agent assignments are

computed based on consideration of one or more of data collection service registrations

(see information area – column 9 lines 20-22; the agent uses this information or registry

to determine its goal or assignment) between said network manager and said agents,

agent cost to obtain network information, load balancing among said agents, and

assignment churn (see system health, metering, tracing, agent context – Pinard column

9 lines 22-25; this information is used by agent in terms of its discovery assignment or

goal).

As per claim 15, Pinard discloses wherein said agent assignments are

implemented by limiting the scope (see accept setup goals – Pinard column 5 lines 53-

54; note that the agent's capability is the same as to other agents, but with the

assignment, it will limit its scope) of agent discovery to a subset of said discovery

capabilities (see Pinard column 5 lines 54-56; the agent's capability are limited based

on the goal or assignment, hence a subset).

8.   Claim 11 rejected under 35 U.S.C. 102(b) as being anticipated by US Patent

Application publication 2003/0177168 to Heitman et al (hereinafter Heitman).

As per claim 11, Heitman discloses in association with a data storage network

(see Heitman Figure 1 SAN) having a plurality of managed hosts (see Heitman Figure 1

Host a,b and c), a plurality of storage devices (see plurality of storage devices –

Heitman pg. 12 paragraph 185 lines 1-8), and a plurality of switching fabric nodes (see

interconnect fabric – Heitman pg. 12 paragraph 185 lines 1-8) providing inband

interconnections between said managed hosts and said storage devices (see

interconnect – Heitman pg 13 paragraph 190 lines 1-6), a data storage network

management system for discovering information about said data storage network (see

SAN Manager and agents – Heitman pg 13 paragraph 191-192), comprising:

- a network manager connected to said managed hosts via outband connections

  (see manager connected to host– Heitman pg 13 paragraph 193 lines);

- plural inband discovery agents operating on said managed hosts (see inband

  discovery – Heitman pg 13 paragraph 193 lines 8-13);

- plural outband discovery agents operating on said network manager (see

  outband discovery – Heitman pg 13 paragraph 193 lines 13-17);

- each of said discovery agents having an associated discovery capability to obtain

  information concerning said data storage network (see agents gather information

  – Heitman pg 13 paragraph 193 lines 13-17);

- agent capability determining logic in said discovery agents adapted to generate agent capability information sets identifying said agent discovery capabilities (see agents provide services – Heitman paragraph 210; each agent has capabilities information that identifies the agent), said agent capability information sets being subsets of full agent discovery information sets obtainable by said agents (see Heitman paragraphs 211-221, each agent has a specific capability);

- assignment computation logic (see agent registry – Heitman pg 46 paragraph 730 lines 1-6) in said network manager adapted to compute agent discovery assignments for one or more of said discovery agents based on said agent discovery capability information sets (see identifier – Heitman pg 46 paragraph 730 lines 6-10; agents that are known to the manager implies that that manager knows its capabilities and assigns the agents accordingly); and

- assignment implementing logic in said one or more discovery agents for implementing said agent discovery assignments (see agent services and function – see Heitman pg 46 paragraph 731 lines 5-11; an agent has logic to do the services it is assigned to provide).

Claim Rejections - 35 USC § 103

9.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

10.   Claims 5 and 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable

over US Patent 5638494 to Pinard et al (hereinafter Pinard) in view of US Patent

Application publication 2003/0177168 to Heitman et al (hereinafter Heitman).

As per claim 5, Pinard discloses all the limitations of parent claim 1 from which

claim 5 depend (see above 102 rejections for claim 1).

.   Pinard does not disclose expressly wherein the said agent discovery

assignments comprise one or both of inband and outband discovery assignments.

The concept of an agent with two assignments is well known in the art as

illustrated by Heitman which teaches an agent discovery assignments comprise one or

both of inband and outband discovery assignments (see inband and outband discovery

– Heitman pg. 13 paragraph 193 lines 8-17).

Pinard and Heitman are analogous art because both have similar problem

solving area, which is to gather information via agents about a network. At the time of

the invention it would have been obvious to a person of ordinary skill in the art to modify

the system of Pinard with an agent discovery assignments comprise one or both of

inband and outband discovery assignments such as disclosed by Heitman. The

motivation is to utilize information gathering regarding the overall network, as well as specific devices on the network (see Heitman pg. 13 paragraph 198 lines 8-17).

As per claim 16, Pinard discloses,

- agent discovery capability determining logic adapted (see allocating resources – Pinard column 5 lines 28-29) to determine discovery capabilities of discovery agents (see different types of work – Pinard column 5 lines 7-12);

- assignment computation logic (see set area – Pinard column 5 lines 53-60; this computes the goals or assignments of agents) adapted to compute agent discovery assignments based on said agent discovery capabilities (see setup goals – Pinard column 5 lines 53-60; based on the capabilities, agents setup their goals or the assignments);

- discovery poll request logic adapted to request network discovery from said agents according to said agent discovery assignments (see notification area – Pinard column 10 lines 22-26;), and

- discovery poll response logic adapted to process network discovery received from said agents in response to said network discovery requests (see agent post to blackboard – Pinard column 10 lines 20-21; agent post to the blackboard of the state of their capability);

Pinard does not discloses expressly that the network manager and agents are in a data storage network.

The concept of using network managers and agents in a storage area network are well known in the art as illustrated by Heitman which teaches network manager and agents in a data storage network (see manager and agents – Heitman pg. 13 paragraph 195 lines 1-9).

Pinard and Heitman are analogous art because both have similar problem solving area, which is a network manager that uses agents to gather information about a network. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the system of Pinard with network manager and agents that are in a data storage network as disclosed by Heitman. The motivation is to discern the makeup or status of the storage area network so that administrators can monitor the network or apply changes (see Heitman pg. 13 paragraph 195 lines 4-8).

As per claim 17, Pinard discloses,

- discovery capability logic adapted to determine (see allocating resources – Pinard column 5 lines 28-29) and provide agent discovery capability information to a requestor (see Pinard column 5 lines 16-23; an agent can be the requestor to request for another agent's assignment), said agent discovery capability information being a subset of all discovery information obtainable by said agent (see setup goals – Pinard column 5 lines 53-60; based on the capabilities, agents setup their goals or the assignments); and

- discovery query logic adapted to implement discovery queries (see information – Pinard column 7 lines 30-33) based on agent discovery assignment information

determined from said capability information (see goals for various agents –

Pinard column 6 lines 17-22);

Panard does not disclose expressly a network discovery agent for use in a data

storage network.

The concept of using agents in a storage area network are well known in the art

as illustrated by Heitman which teaches agents in a data storage network (see agents –

Heitman pg. 13 paragraph 195 lines 1-4).

Pinard and Heitman are analogous art because both have similar problem

solving area, which is to gather information via agents about a network. At the time of

the invention, it would have been obvious to a person of ordinary skill in the art to

modify the system of Pinard with agents that are in a data storage network as disclosed

by Heitman. The motivation is to discern the makeup or status of the storage area

network.

As per claims 18 and 19,

As per claim 18, Pinard discloses a computer program product (see computer

program – Pinard column 11 lines 41-43) for obtaining discovery of network information

from plural information gathering agents (see goals – Pinard column 11 lines 41-45),

comprising: one or more data storage media; means recorded on said data storage

media for programming a data processing platform to operate as a network manager

(see processor system – Pinard column 11 lines 41-43) to perform intelligent network

discovery (see communicates – Pinard column 12 lines 35-37; an agent discovers the

network when it communicates) by:

- determining discovery capabilities of said agents (see allocating resources

  – Pinard column 5 lines 28-29);

- computing agent assignments (see set area – Pinard column 5 lines 53-

  60; this computes the goals or assignments of agents) based on said

  agent discovery capabilities (see setup goals – Pinard column 5 lines 53-

  60; based on the capabilities, agents setup their goals or the assignments)

- requesting one or more of said agents to perform network discovery

  according to said agent assignments (see notification area – Pinard

  column 10 lines 22-26; communicates to agents an event and based on

  the capability of that agent, the agent will respond); and

- processing discovery information returned by said one or more agents

  (see processor system – Pinard column 11 lines 59-60; handling the

  agents means the processor is processing what the information

  discovered by the agent).

- wherein said agent discovery assignments are based on one or more of

  data collection service registrations (see information area – column 9 lines

  20-22; the agent uses this information or registry to determine its goal or

  assignment) between said network manager and said agents, agent cost

  to obtain network information, load balancing among said agents, and

  assignment churn (see system health, metering, tracing, agent context –

Pinard column 9 lines 22-25; this information is used by agent in terms of its discovery assignment or goal).

Pinard does not discloses expressly that the network manager and agents are in a data storage network.

The concept of using network managers and agents in a storage area network are well known in the art as illustrated by Heitman which teaches network manager and agents in a data storage network (see manager and agents – Heitman pg. 13 paragraph 195 lines 1-9).

Pinard and Heitman are analogous art because both have similar problem solving area, which is a network manager that uses agents to gather information about a network. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the system of Pinard with network manager and agents that are in a data storage network as disclosed by Heitman. The motivation is to discern the makeup or status of the storage area network so that administrators can monitor the network or apply changes (see Heitman pg. 13 paragraph 195 lines 4-8).

As per claim 20, Pinard discloses, a computer program product ((see computer program – Pinard column 11 lines 41-43) for obtaining discovery of network information from plural information gathering agents (see goals – Pinard column 11 lines 41-45), comprising:

- providing agent discovery capability information to a requester (see allocating resources – Pinard column 5 lines 28-35; agents can know another agent's capability);

- receiving agent discovery assignments (see set area – Pinard column 5 lines 53-60; this computes the goals or assignments of agents) from said requester (see Pinard column 5 lines 16-23; an agent can be the requestor to request for another agent's assignment) that are based on said discovery capability information (see setup goals – Pinard column 5 lines 53-60; based on the capabilities, agents setup their goals or the assignments)

- performing intelligent discovery according to said agent discovery assignments (see goals for various agents – Pinard column 6 lines 17-22); and

- providing intelligent discovery information (see information – Pinard column 7 lines 30-33) received in response to said intelligent discovery to said requester (see links – Pinard column 7 lines 37-40; these links provide other agents to request such information).

Pinard does not disclose expressly a managed host in a data storage network to operate as an inband discovery agent or a network manager to operate as an outband discovery agent that performs intelligent network discovery in conjunction with other agents.

The concept of an agent with two assignments is well known in the art as illustrated by Heitman which teaches a managed host in a data storage network to operate as an inband discovery agent (see inband discovery – Heitman pg. 13

paragraph 193 lines 8-13) or a network manager to operate as an outband discovery agent (see outband discovery – Heitman pg. 13 paragraph 193 lines 13-17) that performs intelligent network discovery in conjunction with other agents (see agents gather information – Heitman pg. 13 paragraph 193 lines 13-17).

Pinard and Heitman are analogous art because both have similar problem solving area, which is to gather information via agents about a network. At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify the system of Pinard with an agent discovery assignments comprise one or both of inband and outband discovery assignments such as disclosed by Heitman. The motivation is to utilize information gathering regarding the overall network, as well as specific devices on the network (see Heitman pg. 13 paragraph 193 lines 8-17).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent Application Publication 2002/0166002 to Milner et al, teaches an agent in a host that is assigned to a fabric interconnect.

US Patent 6691116 to Bart teaches an agent that collects data, specifically data from remote sources.

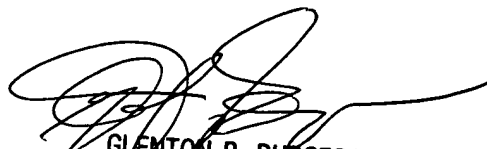US Patent 6253240 to Axberg teaches separate agents to each host.

"Netware and Management software trends for 10base-t" by Ross K, c1992 teaches agents that are assigned to a network element.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marvin Mabini whose telephone number is 571-270-1142. The examiner can normally be reached on Monday-Friday 9AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton B. Burgess can be reached on 571-272-3949. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MM/

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